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On the Status of *Caecilia occidentalis* Taylor

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While re-examining caecilians in the Academy of Natural Sciences of Philadelphia (ANSP), I found four specimens from Popayan and Moscopán, Cauca, Colombia, which had been overlooked on my previous examination of the collection. These had been labeled *Caecilia pachynema* by a previous caretaker. Careful examination of these specimens causes me to associate them with *Caecilia occidentalis* Taylor described from a specimen obtained from Dr. Max Hensley and likewise from Popayan. Despite the fact that the specimen serving as the type had been injured badly, practically all significant characters were discerned.

Of these four specimens, ANSP Nos. 25566-25569, the first three are topotypes of *C. occidentalis*, the fourth is from Moscopán, Cauca, Colombia. They provide data to substantiate the validity of the species. A skull has been prepared from ANSP No. 25568, which is described and figured.

Comparative data on measurements, tooth counts, etc., are presented in the following table [data on the type, (EHT-HMS 4665), included].

From the table, it will be noted that the process of growth entails a great lengthening of the body, the width of head and body growing but little proportionally.

The absence of secondaries in certain specimens of a species has been reported in other species of the genus *Caecilia* (i.e., *guntheri*, *pachynema*) while in certain other species secondaries have not as yet been found to occur (i.e., *caribea* and *elongata*).

The collars in these four specimens are not as well marked as in the type. The transverse dorsal grooves are either absent or only dimly indicated. The two collars are not clearly separated dorsally, and the second is fused dorsally and ventrally with the first primary fold.

The lateral cream or yellowish stripe is similar to that of the type, better defined anteriorly and posteriorly, while in the area between, it may be reduced to a dim broken line which may be absent for a distance. The

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TABLE 1. Comparative data on *Caecilia occidentalis*. All measurements are in mm.

Museum No. Locality	EHT-HMS 4665 Popayan	ANSP 25566 Popayan	ANSP 25567 Popayan	ANSP 25568 Popayan	ANSP 25569 Moscopan
Total length	1035	425	564	868	995
Head width	10	7	8	8	9
Body width	9.3	8.2	8.5	8	9
Eye to tentacle	5.4	3.2	3.5	4	4.1
Tentacle to nostril	1.7	1.1	1.25	1.5	1.6
Primary folds	218	191	209	205	221
Complete folds	4 or 5	5	8	17	20
Secondary folds	0	12	0	4	8
Premax-max. teeth	12-13	8-8	10-9	11-11	11-10
Prevom-pal. teeth	10-11	10-9	11-12	12-12	12-11
Dentary teeth	11-11	12-(12)	12-12	12-12	11-11
Splential teeth	5-(5)	3-3	3-3	3-3	3-3
Scales (rows) posteriorly	1	1	1	1	1
Width in length (times)	111	52	663	1085	110
Vertebrae	225	197	207	212	229

subterminal markings are practically the same in all. The occipital region may have three dim cream spots and there is a more or less distinct light spot at or anterior to the tentacle and the nostril; one also on the tip of the snout.

Scales in the grooves are present in more than two thirds of the body. Subdermal scales, in evidence throughout much of the body, are very small, rarely more than 0.2 mm in diameter. The head is generally tapering somewhat, the snout extending about 2.0 to 2.3 mm beyond the mouth.

Within the mouth the choanae are very close to the prevomerine teeth. The narial plugs of the tongue are elevated and teatlike.

The skull of this species shows strong similarity to the skulls of the Caeciliinae, especially to species of the *Caecilia sensu strictu*, as the data here recorded indicate. The data presented are from the skull of ANSP 22568. The skull agrees with skulls of the family in having the reduced number of bones. Thus the prefrontals, septomaxillae and oculars are not present as separate bones. The nasals and the premaxillary elements are fused to form the nasopremaxillae. The maxillae and palatines are fused to form the maxillopalatines. The stapes are present. The mesethmoid does not appear on the dorsal surface of the skull.

The anterior dorsal surface of the skull is covered by the paired nasopremaxillae, the lateral edges of which are roughly notched along the

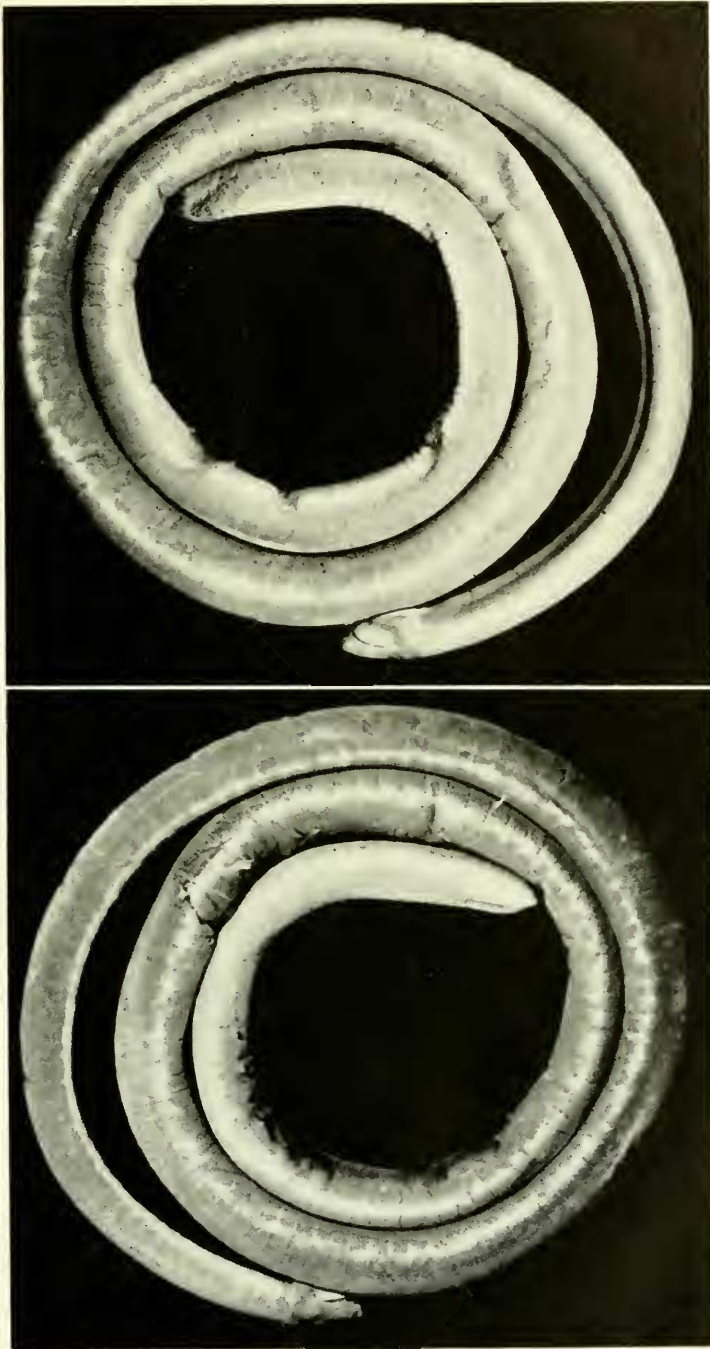


FIG. 1. Left. Left lateral view of *Caecilia occidentalis* Taylor, Topotype, ANSP No. 25567, Popayan, Cauca, Colombia. Total length, 564 mm. Right. Right ventrolateral view of the same specimen.

sutures. The frontals are narrowed anteriorly, flaring out posteriorly, in contact only for about one half of their length. The parietals are a little longer than the frontals, bending down posteriorly with very uneven sutures. The two lateral posterior parts of the compound basisphenoid meet narrowly preceding the foramen magnum.

The side of the skull anteriorly is formed by the maxillary part of the maxillopalatine, followed by the squamosal, a bone somewhat shorter than the preceding, and in contact posteriorly with the quadrate and also to a process of the stapes.

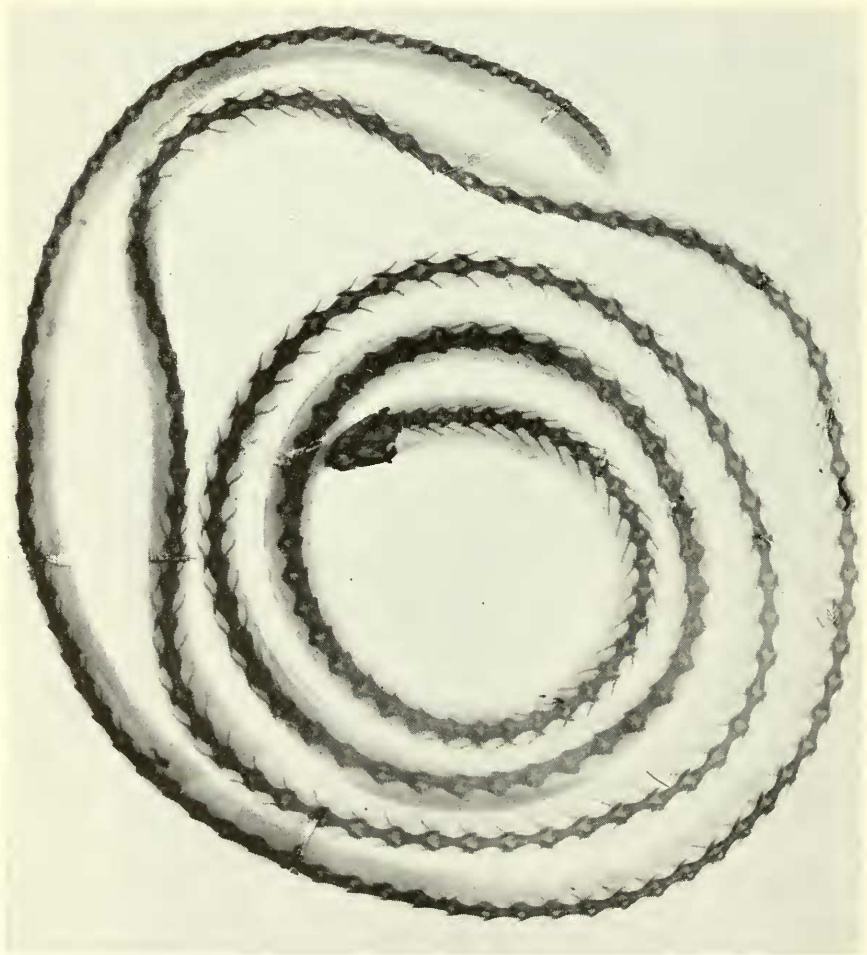


FIG. 2. X-ray of *Caecilia occidentalis* Taylor. ANSP No. 22569, Moscopan, Cauca, Colombia. Vertebrae, 229. Actual length, 995 mm.

The stapes fits into a notch in the lateral part of the basisphenoid. The posterior part of the suture between the parietal and squamosal is joined by cartilage.

Anteriorly on the ventral surface of the skull there is a shelflike forward projection between the nasal openings. The premaxillary parts of the nasopremaxillae bear seven teeth (3-4). On the ventral side of these parts there are three posterior projections which interdigitate with two blunt processes from the anterior part of the prevomers preceding the prevomerine dental series. These series consist of seven teeth (3-4). The prevomerine bones extend posterior to the teeth, separated for much of their length by an anterior spine of the basisphenoid and reaching one fourth of their length behind the internal nares, forming half of the border of the nares on their inner sides. The outer sides of the nares are bordered by the palatine portion of the maxillopalatine.

The basisphenoid sends forward a spinelike process that separates the prevomers for more than half their length, and also two processes between the prevomers and the relatively small diastema between the basisphenoid and the pterygoid process of the quadrate. The "wings" of the basisphenoid are large, laterally curving down slightly. Below the region of the otic capsules there are two short, transversely flattened, blunt, processes.

The skull measurements in mm and tooth counts are as follows: total length of skull, 11.2; greatest width, 6; width at orbits, 5; length of jaw, 7.2; length of basisphenoid (ventral), 8; width of same at "wings," 4; width at otic capsules, 4; length of prevomers, 5.2; width of prevomers, greatest, 3; length from anterior edge of internal nares to occipital condyle, 6.4; premaxillary teeth, 3-4; maxillary teeth, 7-7; prevomerine teeth, 4-4; palatine teeth, 8-7; dentary teeth, 13-13; splenial teeth, 4-4. Total length of the preserved specimen, 868.

I desire to extend my gratitude to The Director of the Philadelphia Academy of Sciences, Dr. Radclyffe Roberts, and to Dr. James E. Böhlke, Curator, for the loan and for assistance while at the Academy.

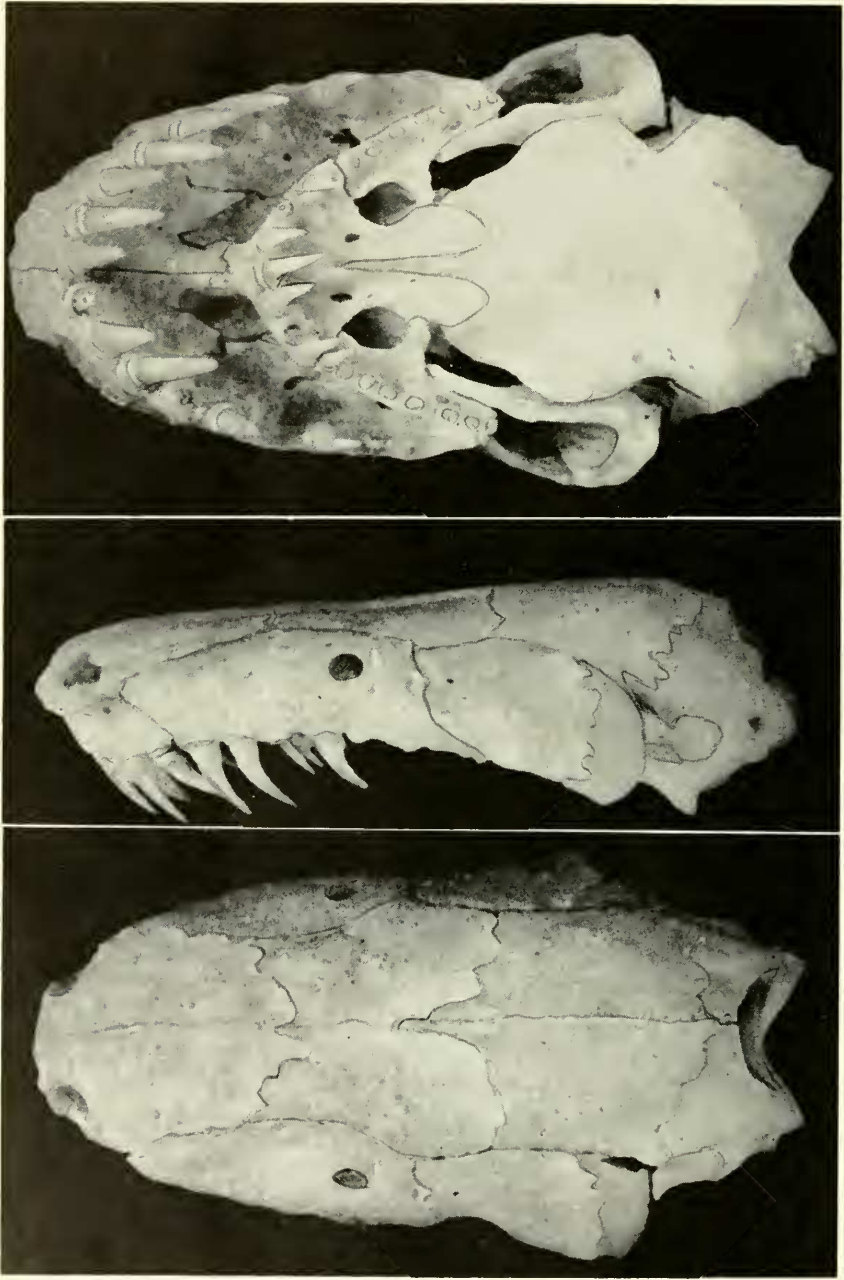


FIG. 3. Three views of the skull of *Caecilia occidentalis* Taylor; dorsal, lateral, and ventral. ANSP No. 25568. Length of skull, 11.2 mm; greatest width, 6.0 mm.